WHITE SANDS MISSILE RANGE
Strategic Plan 2006

A TRI-SERVICE RANGE

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Foreword

White Sands Missile Range (WSMR) is a unique tri-service installation facility dedicated to the Test, Evaluation (T&E) process, research, and the assessment of military weapon systems and commercial products. The Range offers an eclectic assortment of missile and system of systems (SoS) testing capabilities and infrastructure that is the largest open-air land missile range in the Department of Defense (DoD). Inclusive are capabilities such as state-of-the-art environmental testing chambers, an extensive data collection instrumentation suite, advanced data processing, and modeling & simulation (M&S) facilities. This places WSMR in a unique position to address present and future challenges facing our Warfighters and our support for the GWOT.

WSMR is part of the Developmental Test Command (DTC), which reports to the United States Army Test and Evaluation Command (ATEC). WSMR is designated as an activity within the DoD major range and test facility base (MRTFB). The Range possesses extensive capabilities and infrastructure utilized by the Army, Navy, Air Force, NASA and other government agencies as well as universities, private industry and foreign militaries. The WSMR Strategic Plan is guided by the Army Transformation Roadmap to focus WSMR within the larger framework of DoD transformation. As a tri-service facility, WSMR is responsive to command guidance for all DoD transformation activities. The WSMR Strategic Plan is designed to ensure a unified tri-service strategy that serves our many diverse customers.

The WSMR Strategic Plan integrates strategic planning at all management levels and includes short-term and long-term strategic objectives. This is the basis to maintain core capabilities, and address the future challenges. This is a living document that will be revised continuously to reflect new trends, new customers, and new business models commensurate to future objectives in line with DoD and WSMR. In the near future, WSMR will be a recognized leader in Army Transformation. Transformation is a ***continuing process*** which will energize and create a dynamic future for the Range. Transformation is meant to address the ***co-evolution*** of concepts, processes, organizations and technology. ***Change*** in any one of these areas by definition necessitates change in all. This means that our traditional T&E functions will evolve into something that should be called Transformational T&E. Transformational T & E will be much a much more dynamic enterprise than its successor. New weapons systems and state-of-the-art technology will be important elements of the DoD's Transformation. What are critical to the success of this endeavor are the people involved. Typically, Transformational processes tend to be cultural, and thus open-minded "think outside-the-box" views are of utmost necessity to bring about and effect positive change on the methods of how the military operates. Therefore, this Strategic Plan is a guide to define our role as part of the DoD's supporting our Warfighter, community, and customers for the 21st Century as we continue to provide excellence in testing as a tri-service range.

Mission, Vision, and Values

Mission	**White Sands Missile Range provides DoD Army, Navy, Air Force, and other customers with high quality services for experimentation, test, research, assessment, development, and training in support of our transforming military and our nation at war.**
Vision	➢ **The Warfighters engaged in the global war on terrorism are our ultimate customers. We will rapidly adapt to their evolving needs.** ➢ **We will become the premier joint test and training complex for component, integration, and system of systems efforts.** ➢ **We will be recognized as the most innovative and flexible solutions based service provider.** ➢ **White Sands Missile Range will be the most desirable place to live and work.**
Values	**In addition to the Army's core values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage, we will emphasize customer service, teamwork, and stewardship.**

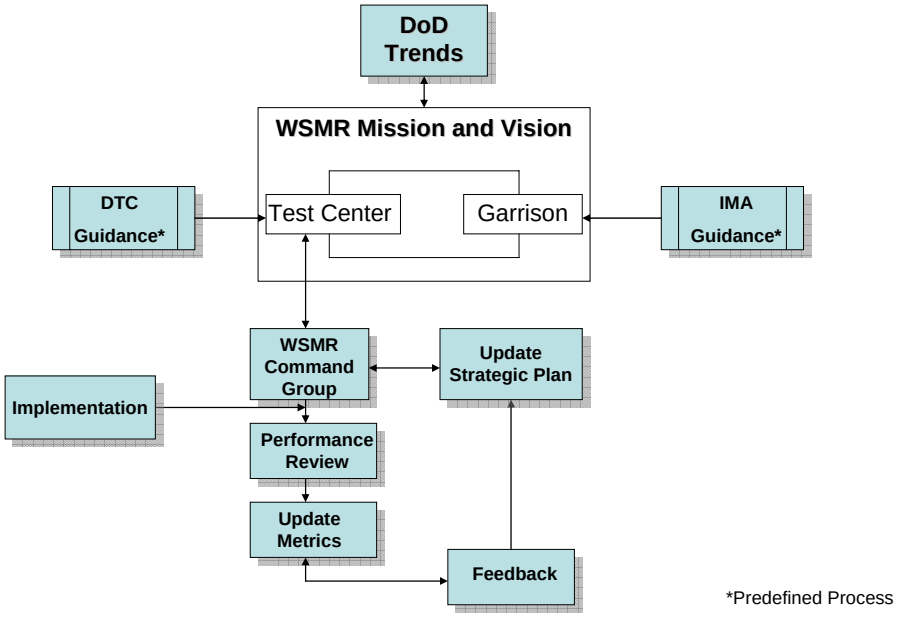
Best Practices

The WSMR Strategic Plan receives guidance from a number of sources. Programmatic guidance for test activities is provided by DTC while Garrison guidance is provided by the Installation Management Agency (IMA). WSMR Vision and Mission are balanced with respect to both guiding agencies. Additional direction comes from outside studies, DoD trends, climate surveys, and customer surveys that enable WSMR to improve its role in the overall DoD mission.

The WSMR Strategic Plan is prepared by individuals who come from the many diverse organizations of WSMR. The WSMR Command Group reviews the WSMR Strategic Plan and updates it annually.

The WSMR Commander and the Command Group provide mission, vision and values to guide the development of strategic goals. They also design initiatives to achieve strategic goals and performance metrics to maintain focus and to measure progress.

Strategic Planning Process



WSMR utilizes Best Practices to guide new endeavors towards excellence. Best Practices provide guiding principles and techniques that maintain focus on Customers, People, Processes and Technology, and Finances and Long-Term Viability. Each subject matter provides a set of objectives and initiatives that are essential for incorporation and execution of the WSMR Strategic Plan.

Customers

Provide customers best-value products and services within program estimates.

- Provide customers best-value products and services that meet and exceed all support requirements.
    - Send DTC customer survey to customer and request a reply. Implement a person-to-person survey meeting for large (>$2M) customers with follow-on meetings.
- Identify and meet customer requirements to ensure that facilities are up-to-date and ready.
    - Develop a marketing strategy to research current and potential customers.
- Provide customers timely and accurate cost information.
    - Develop written policy for tracking and recording final cost
- Meet customer schedule requirements to include test planning, execution, and data product delivery.
    - Develop high level metric to see range flexibility and responsiveness

People

Develop and maintain a highly skilled and motivated workforce that meets current and future mission requirements.

- Recruit, train, educate, and retain a professional workforce.
    - Develop career enhancement opportunities for current workforce and with academia, industry, national laboratories, and other DoD agencies.
    - Develop opportunities for students, local and national, to gain valuable skill sets.
- Ensure that the workforce is properly staffed.
    - Develop a program that allows for certification training.
    - Set up a short and long term staffing plan in all functional testing areas.
- Maintain an environment of innovation, empowerment, and equal opportunity.
    - Develop long range policy to maintain a consistent diverse staffing, including CO-Ops & Interns.
    - Adopt an innovative philosophy:
        - Welcome change
        - Listen to all ideas and viewpoints
        - Set challenging and competitive goals
        - Take pride in work
        - Properly plan projects
        - Make & meet commitments
        - Conduct business with uncompromising integrity & professionalism
        - Listen to our customer
        - Make it easy to work with us
        - Communicate mutual intention & expectations
        - Focus on output
        - Assume responsibility
        - Confront & solve problems
        - Respect and trust each other
        - Recognize and reward accomplishments
        - Work as a team
        - Enjoy your work

Processes Techniques and Technology

Optimize organizational processes, technologies, and facilities to improve current and future customer support capabilities.

- Identify methodologies needed to support and optimize critical technologies.
    - Establish strategic partnerships with DoD, state, academia, and private industry to develop advanced testing technologies.
- Identify and focus on the mission through strategic planning.
- Implement a Process Improvement Plan such as the Capability Maturity Model Integration (CMMI).
- Become a premiere DoD test-bed for the Global Information Grid (GIG).

Finances and Long-Term Viability

Ensure organizational viability and long term growth through resource management, strategic planning, and improve business development.

- Develop accurate financial mechanisms to support the mission.
- Expand the customer base.
    - Implement a policy that drives WSMR toward finding new DoD & non-DoD customers.
- Ensure long-term range sustainability.

Rapid Equipping Force (REF) and Rapid Force Initiatives (RFI)
As a nation at war, WSMR will support the warfighter in the Global War on Terror (GWOT). WSMR will support the business practices necessary to bring new technology to troops in the field in a short amount of time. WSMR will be prepared to immediately respond to REF & RFI programs at all stages of weapon systems development with very short notice.

DoD/Army Transformation/FCS
WSMR has been selected as the test location for the Unit of Action / Future Combat Systems (FCS) Technical Field Test (TFT). Required test support capabilities will include both sub-system and total system tests for ground systems, unmanned ground vehicles, and unmanned aerial vehicles. These tests will be distributed in nature with sub-systems located outside of WSMR at other Ranges. To facilitate DoD/Army Transformational process at WSMR, the range is committed towards the development of an Enterprise Services Architecture necessary to deliver the full spectrum capabilities expected with FCS testing.

Joint Testing and Training
System of Systems
WSMR will continue to expand test support for joint testing of systems of systems as directed by DODD 5000.1 (revised): "Systems, units, and forces shall be able to provide and accept data, information, materiel, and services to and from other systems, units, and forces and shall effectively interoperate with other U.S. Forces and coalition partners. Joint concepts and integrated architectures shall be used to characterize these interrelationships."
WSMR will continue to support large training activities such as Roving Sands. In response to the growing requirement to merge development and training, WSMR will pursue additional developmental training.

Distributed Testing
WSMR will operate in a distributed testing environment with robust and repeatable interaction between Range data systems and distributed systems on-Range and off-Range. WSMR will continue to expand distributed connectivity through the development of stimulators, simulators, and receivers of distributed data, as described in the Testing in a Joint Environment Roadmap.

Test and Evaluation
As directed by the Developmental Test Command (DTC) Strategic Plan, WSMR is the DTC Test Center to perform tests and assessments throughout the system lifecycles of materiel (including embedded software) and to provide diverse test technology and unique specialties in areas such as: platform level testing, indirect fire missiles, unmanned aerial vehicles, C4I, E3, nuclear hardness, and information assurance.

Modeling & Simulation
WSMR will continue to develop and deploy Modeling & Simulation tools to facilitate test planning, test execution, integrated test environments. Modeling and simulation will also support distributed testing through the Inter Range Control Center (IRCC).

Policy Statement

Robotics and Unmanned Systems
WSMR will continue to expand robotic/intelligent and unmanned vehicle testing capability with particular emphasis on unmanned aerial and ground vehicles as part of the Unit of Action. WSMR will continue to support its partnership with New Mexico State University's Physical Sciences Laboratory (PSL) and Holloman Air Force Base in the growth of the Joint Regional UAV Test Center.

Directed Energy
WSMR is involved in the Joint Directed Energy Test and Evaluation Capability (DETEC) effort and has the experience, facilities, unique terrain and infrastructure to support Directed Energy programs such as Mobile Tactical High Energy Laser and Airborne Laser. WSMR will develop capability to support upcoming directed energy weapons such as lasers and high powered microwaves.

Off-Range Support
Mobile instrumentation assets in use at WSMR will continue to be made available for off-Range support at other DoD test ranges. WSMR will pursue development and smart scheduling of mobile assets to balance on-Range and off-Range instrumentation and staffing requirements.

Space
WSMR will expand space vehicle test capabilities through collaborative partnerships with DoD, Government agencies, and Academia. WSMR will actively participate in the testing and development of space-borne instrumentation platforms, command control, and test conduct to address DoD initiatives with a capability to provide support to NM's Space Port's program.

Energy Resources
WSMR will support the Energy Policy Act of 2005 and the recent Presidential memorandum on Energy and Fuel Conservation by Federal Agencies. WSMR will actively pursue and implement policies that will conserve energy resources and reduce energy costs.

Five Year Customer Projection

The five year customer plan is under development and will define processes needed to address current and future customer Range requirements. The customer database will contain individual customer profiles for DoD, Governmental agencies, academia and private industry.

Topics to consider as part of the profile will include customer surveys, forecasting issues, customer requirements, definition of customer quality, service standards achieved, and customer assessments.

Emerging Technology

The complexity of the WSMR Test and Evaluation (T&E) Mission, demands the need for innovation. In today's business environment, the pace of technological change is extreme. New innovations to these challenges must be found outside our normal contacts. Sources of these may include universities, research laboratories, industrial organizations, and military organizations outside the Army.

WSMR is being driven by the Department of Defense Transformation program initiated by Secretary of Defense Donald Rumsfeld to reconfigure themselves to address the requirements of "network-centric warfare" (NCW) with its emphasis on multi-modal sensors, autonomous vehicles, multi-source information fusion, enhanced situational awareness and opportunities for remote action. WSMR has a near-term opportunity to establish itself as the model of a fully-integrated Research, Development, Test, and Evaluation (RDT&E) facility addressing the full gamut of physical, informational, and cognitive domains required by NCW systems and systems of systems. Success in this transformational effort will result in an expanded "systems of systems" mission and significant growth in T&E.

Technology change also may differentially affect the competition among incumbent companies and/or lower barriers to entry in existing industries. Emerging technologies developed at WSMR will direct the future role of the Range as a premier Transformational T&E leader focused on developments in the information and SoS sectors to include the following:

- Integration of Sensors and Sensor Networks, including sensor R&D, autonomous sensor power and communications infrastructure, extreme-environment survivability, secure network communications, and sensor data analysis.

- Ground, Air and Space-based Robotics and Autonomous Vehicles, including autonomous robotics, remote-operation systems and interfaces, UAV systems, UGV systems, space systems, and operator interface usability testing.

- Data Fusion, Management, Mining, and Visualization, including sensor data fusion, GIS systems, databases, machine learning, automated text extraction, translation, and message understanding, multi-user collaboration systems, open-source intelligence (OSINT) systems and practice, and complex system usability testing.

- Modeling and Simulation and Decision Support, including physical, biological, and socio-behavioral systems modeling, GIS-based models, and decision-support systems with embedded intelligence and simulation capabilities.

- Intelligent systems, cognitive, and socio-behavioral systems modeling, GIS-based models, and decision-support systems with embedded intelligence and simulation capabilities.

- High Performance Computing and Communications Architecture, including range-wide wireless, network systems, network security, and specialized parallel architectures.

Emerging Technology

- Collective Intelligence, Behavior and Organization, including organizational culture analysis, individual and small-group socio-behavioral modeling, deception and counter-deception methods.

- Alternative Energy Applications that serve to off-load the dependency on fossil fuel and provided an efficient cost effective alternative.

These capabilities, in combination with current capabilities provide the basis for the development of integrated products and services to accomplish the T&E Transformation requiring complex systems involving sensor networks, autonomous or semi-autonomous platforms, multi-source data fusion and knowledge management, and intelligent decision support capabilities.

Capabilities to Sustain

Beginning in fiscal year 2006 all Major Ranges and Test Facility Bases (MRTFBs) will be funded as directed by the Bob Stump National Defense Authorization Act of 2003. Direct costs will only be charged to customers and indirect costs will be institutionally funded. Also, the capabilities for each MRTFB to sustain will be in line with Defense Test Resource Management Center Biennial Strategic Plan (DoD Directive 5105.71).

Capabilities referenced in appendix A

Contact Information

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White Sands Missile Range, NM 88002

(505) 678- WSMR (9767), DSN 258-9767

http://wsmr.army.mil

Appendix A: Capabilities

Owner Capability
Information
Operations Commo - Bldg 335
Commo - Central Range
Commo - Frequency Surveillance Sites
Commo - Mobile Communications
Commo - North Range
Commo - South Range
Inter Range
Control Center Cox Range Control Center Inter Range Control Center
Materiel Test Chemistry Laboratory
Climatic Environments Facility
Dynamic Environmental Test Facility
Electro-Optics Test Facility
ETA-II Climatic Facility
Hazardous Test Area (HTA) Facilities
Installation Ammunition Storage, Bldgs. 21330-21344
Launch Complex 32 Facilities
Launch Complex 33 Facilities
Launch Complex 37 Facilities
Launch Complex 38 Facilities
Launch Complex 50 Facilities
Launch Complex 94 Facilities
Launch Sites Facilities
Launch Support Facilities
Metallurgy Test Facility
Microbiological Test Facility
Missile Assembly Building(s)
Missile Impact Test Areas
Mobile field conditioning equipment
Mobile Instrumentation Van(s)
Oro Grande Facilities
Oscura Range
Sim Analysis & Data Sys (SANDS)
Small Sensor Range
Small Missile Range
Stallion Site
SWAB V
Temperature Test Facility (TTF)
Test Support Van(s)
Range
Operations
Cox Range Control Center - Operations Control & Display Facility (OCDF) (RO-CR)
Data Reduction Facility (DRF) (RO-A)
Flight Safety Risk Analysis Suite (RO-CF)
Flight Termination Receiver Lab, Bldg 1530 (RO-CF)
Total Optics Suite
Total Telemetry Suite

Total Radar Suite
Aerial Cable Facility (ACF) (RO-CR)
Transportable Range Augmentation and Control System (TRACS) (ROA)
MET Test Suite
Ft. Wingate Launch Facility (RO-CR)
Cox Range Control Center - Drone Formation Control System (DFCS) (RO-CR)
Cox Range Control Center - Telemetry Data Center Facility (TDC) (ROA)
Air Traffic Control Facility (RO-CR)
Survivability
Vulnerability
Assessment
Combined Environments:
Dosimetry Facility
Electromagnetic Compatibility (EMC) and Electromagnetic Interference Facilities
Fast Burst Reactor (FBR)
Gamma Dose Radiation Complex
Hazards of Electromagnetic Radiation on Ordnance (HERO) Instrumentation Suite.
High Power Electromagnetic (HPEM) Facility
High Power Electromagnetic (HPEM) Instrumentation Suite.
Ionization Radiation Facilities
NETS / DETES (Nuclear Effects Testing Simulation / Directed Energy Test and Evaluation Simulation) Modeling and Simulation
Pulsed Laser Vulnerability Test System (PLVTS) Facility
Radiation Tolerance Assured Supply and Support Center (RTASSC)
Rapid Response Laboratory
Relativistic Electron Beam Accelerator (REBA) / Solar Furnace / MUDD
Semiconductor Test Laboratory
Transient Electromagnetic Instrumentation Suite.
Transient Radiation Effects on Electronics (TREE) Instrumentation Suite.
Test Center Facilities-Specific Training
Instrumentation Maintenance (ADPE)
Land Leases
Missile Recovery
Mission Expendable Bench Stock
Range Residue Accum Point (RRAP) Mgr
Range Road Maintenance
Utilities - Not Tied to a Specific Facility
UXO Management
Alamo Peak Off-Range Road Maintenance
Air Support

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